

and six feet deep on the outskirts of San Juan. Whether lava engulfs the town is a race between the ability of this valley to hold lava without spilling and the continued outpouring from the volcano. Strangely enough, this new flow comes from the southern side of the volcano, which is the far side from the threatened town. The new stream of liquid and hot rock curves around old flows which engulfed the little village of Paricutin last year.

Eruption of the volcano itself is at present somewhat subdued, probably due to the effort of ejecting lava, but it still erupts every nine to ten seconds.

"Explosions occur very deep within the crater and vapors of explosions issue from the crater's mouth, with noises like

waves breaking against a rocky shore," Senor Ordenez reported in Mexico City, where he was trying to arrange government assistance for the Indian population facing eviction by the flow.

Senor Ordenez and his observers, constantly at the volcano's side day and night, are watching and recording what happens as carefully as they did in the weeks just after the volcano was born out of a cornfield on Feb. 20, 1943—first such event to be witnessed by human beings during recorded history.

Even if the lava fails to invade the town, the countryside for 20 miles around will not grow crops for decades to come and the Indian farmers must eventually be resettled elsewhere.

Science News Letter, May 13, 1944

MEDICINE

Mold Put Into Body

New kind of penicillin treatment consists of injection of the hyphae themselves. Tests on humans and animals show quick results with no bad reaction.

► A NEW and apparently better way of using penicillin, putting part of the mold itself directly into the body where it goes on producing its anti-germ chemicals, is suggested in a report by Dr. H. E. Enoch and Dr. W. K. S. Wallersteiner, of London, in a report to the scientific journal, *Nature*. (March 25)

No harmful effects resulted in animals or humans from this method of using penicillin, the scientists report. The response to treatment is prompt, usually within three or four hours after the first injection. Fever dropped and there was immediate relief of pain in the trials on laboratory animals.

Results have already been obtained in human cases of pneumonia that failed to respond to sulfa drugs, and in acute staphylococcal, streptococcal and other infections.

In most of the animal cases one or at most two injections of the material were enough to completely clear an infection. Penicillin itself is rapidly eliminated from the body via the kidneys, which has necessitated giving frequent and usually large doses in order to have enough of it in the body to fight the invading germs. It may have to be given as often as every three or four hours. One injection of the living mold material, however, has an effect that appears to last for 36 to 48 hours.

The material used is a suspension in fluid medium of the hyphae, or filaments, of the mold. They are taken from below the mycelium, or mat of mold filaments, on top of the culture at the stage of its highest rate of penicillin production.

The material is freed of fever-inducing substances and other impurities and is equally efficient whether injected into the veins or the muscles. It seemed "exceptionally potent" when used in treating open wounds with mixed, fever-causing infections.

The effects of this material in checking infection, the scientists believe, are due not only to penicillin, which the mold goes on producing in the body, but to the presence or production of other anti-germ chemicals which are destroyed or left behind in penicillin manufacture.

In 21 cases of animal infections, positive results were obtained in 14. There was some doubt about three cases and four others failed to respond. Even when the living mold material was injected directly into the animal's veins, no harm resulted.

The infections which responded to treatment were gastro-intestinal (the colon bacillus), staphylococcal, streptococcal and pneumococcal. Virus infections did not respond to the treatment.

Science News Letter, May 13, 1944

CHEMISTRY

Anti-Bleeding Vitamin Receives U. S. Patent

► VITAMIN K, the anti-bleeding vitamin, is now covered by U. S. patent 2,348,037, issued to the group of five scientists who first isolated the compound in pure form, determined its chemical structure, and duplicated it synthetically in the laboratory. Rights in the patent have been assigned to St. Louis University, and any proceeds from licenses to manufacture it commercially will be plowed back into scientific investigation. The five-man

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